

**BY ORDER OF THE COMMANDER
AIR FORCE GLOBAL STRIKE
COMMAND**



**AIR FORCE INSTRUCTION 21-103
AIR FORCE GLOBAL STRIKE COMMAND
Supplement**

17 JUNE 2015

Maintenance

**EQUIPMENT INVENTORY, STATUS, AND
UTILIZATION REPORTING SYSTEM/UH-1N
MINIMUM ESSENTIAL SUBSYSTEM LIST
(MESL)**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This MESL complements AFI21-103, *Equipment Inventory, Status and Utilization Reporting*. This MESL complements AFI21-103, Equipment Inventory, Status and Utilization

Reporting. It establishes guidance and assigns responsibility to provide UH-1N status changes/updates in accordance with (IAW) current maintenance conditions and the developed UH-1N mission essential subsystem list (MESL). This addendum is dual published, under different names, as an Air Force Global Strike Command (AFGSC) and Pacific Air Forces (PACAF) publication and is applicable to both commands. This instruction does not apply to the Air National Guard (ANG) or Air Force Reserve Command (AFRC) units. This publication will not be supplemented or further implemented or extended. AFGSC/A4MX serves as the

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suggested improvements to this instruction on AF Form 847, *Recommendation for Change of Publication*, to AFGSC.A4MX.workflow@us.af.mil.

SUMMARY OF CHANGES

This publication is revised to reflect tiered waiver authority IAW AFI 33-360. Added WUC 77AD0 video Recorder-Reproducer (VRR) “”. Appropriate changes made in tables. Changed PACAF Qualifying note 8 to read “Two operational radar altimeters required for all low level flight .

1. General. The MESL is the basis of status reporting IAW AFI 21-103. MESLs lay the ground work for reporting the status of system availability. They list the minimum essential systems and subsystems that must work on a system for it to perform specifically assigned unit wartime, training, test, or other missions.

1.1. Qualifying notes are used to define aircraft exceptions and help explain complex degraded mission systems.

1.2. Units will generate, or deploy and regenerate, using the respective MESL. Major Command differences in MESLs are acknowledged. Upon actual deployment to another MAJCOM theater, the gaining MAJCOM has the responsibility to resource and specify the unit's requirements and resource the differences in support/mission equipment. **(T-2).**

1.3. Aircraft status for generation and deployment: The goal is to generate or deploy FMC aircraft, recognizing status actually achieved may be less than FMC. A Not Mission Capable (NMC) aircraft may be deployed provided it is safe for flight and can be configured and generated to Mission Ready Available (MRA) status at an employment site.

1.4. Reading the MESL. A MESL is read by comparing the systems identified by Work Unit Code (WUC) against the Full Systems List (FSL) and all applicable Basic Systems List (BSL) across the page. If all systems or subsystems with an “X” in the FSL column are working, put the weapon system in a Full Mission Capable (FMC) status code. If any system or subsystem with an “X” in the FSL column only is not working, put the weapon system in a Partial Mission Capable (PMC) status code. Additionally, if any system or subsystem with an “X” in the FSL column and at least one, but not all, BSL columns is not working, put the weapon system in a PMC status code. If any system or subsystem with an “X” in the FSL and all BSL columns is not working, the weapon system cannot perform any mission thus put the weapon system in a Not Mission Capable (NMC) status code. The Mission Capable (MC) status is a combined status that includes both FMC and PMC hours.

2. UH-1N Helicopter MESL.

2.1. MESL codes for the following AFGSC missions can be found in **Table 2.1**, UH-1N Mission Table 1: Emergency Security Response (ESR), Missile Security Support (MSS) and Direct Mission Support (DMS). **(T-2).**

2.2. MESL codes for the following PACAF missions can be found in **Table 2.2**, UH-1N Mission Table 2: Day VFR (Visual Flight Rules), Night IFR (Instrument Flight Rules), Cross Country, Pax MSN and Med Evac. **(T-2).**

Table 2.1. UH-1N MISSION TABLE 1.

Table 2.1. UH-1N MISSION TABLE 1.					
WUC	SYSTEM/SUBSYSTEM	FSL	BSL		
			ESR	MSS	DMS
11000	AIRFRAME	X	X	X	X
12000	COCKPIT AND FUSELAGE COMPARTMENTS	X	X	X	X
13000	LANDING GEAR	X	X	X	X
14000	FLIGHT CONTROLS	X	X	X	X
15000	HELICOPTER ROTOR SYSTEM	X	X	X	X
WUC	SYSTEM/SUBSYSTEM	FSL	BSL		
			ESR	MSS	DMS
22000	TURBOSHAFT PROPULSION SYSTEM	X	X	X	X
26000	HELICOPTER ROTARY WING DRIVE SYSTEM	X	X	X	X
41A00	BLEED AIR HEAT AND VENTILATION	X			
42000	ELECTRICAL POWER SUPPLY	X	X	X	X
44A00	INTERIOR LIGHT SYSTEMS	X	X1	X1	X1
44B00	EXTERIOR LIGHT SYSTEMS	X	X2	X2	X2
44C00	CAUTION AND WARNING LIGHT SYSTEM	X	X	X	X
45000	HYDRAULIC AND PNEUMATIC POWER SUPPLY	X	X	X	X
46A00	CRASHWORTHY FUEL SYSTEM	X	X	X	X
46B00	AUXILIARY CRASHWORTHY FUEL SYSTEM	X	X3	X3	X3
49A00	ENGINE FIRE DETECTOR SYSTEM	X	X	X	X
49B00	RESCUE HOIST SYSTEMS	X	X4	X4	X4
49F00	WINDSHIELD WIPER SYSTEM	X	X	X	X
51A00	FLIGHT INSTRUMENTS	X	X	X	X
51C00	PITOT STATIC SYSTEM	X	X	X	X
51E00	GYROMAGNETIC COMPASS SYSTEM ASN/43	X	X	X	X
51F00	STANDBY COMPASS	X	X	X	X
55A00	INTEGRATED DATA ACQUISITION RECORDER (IDAR) SYSTEM	X			
62D00	VHF-AM RADIO SET ARC-186(V) (VHF COMMAND SET)	X	X5	X5	X5
62G00	LAND MOBILE RADIO (LMR) WIDEBAND HF/UHF SYSTEM	X	X	X	
63B00	UHF COMMAND SET ARC-164(V)	X	X5	X5	X5
64000	INTERPHONE	X	X6	X6	X6
65000	IDENTIFICATION, FRIEND OR FOE (IFF)	X	X	X	X
71A00	TACAN NAVIGATION SET ARN-118(V)	X	X7	X7	X7
71CF0	INDICATOR, BDH ID-633C/U	X	X	X	X
71K00	VOR/ILS/MB NAVIGATION SYSTEM ARN-147(V)	X	X7	X7	X7
72C00	RADAR ALTIMETER SET RT-1438/APN-232	X	X8	X8	X8
77A00	STAR SAFIRE II FLIR AAQ-36	X	X	X9	

77AD0	VIDEO RECORDER-REPRODUCER (VRR)	X			
77AE0	COCKPIT DISPLAY (CD) AMV4055FN	X	X		
91A00	FIRST AID KIT	X	X	X	X
91B00	HAND-HELD FIRE EXTINGUISHER	X	X	X	X
91C00	EMERGENCY LOCATOR TRANSMITTER (ELT)	X	X	X	X
91D00	ENGINE FIRE EXTINGUISHER	X	X	X	X
91E00	PASSENGER ALARM HORN	X	X10	X10	X10
Table 2.1. UH-1N MISSION TABLE 1. NOTES:					
X1	Night operations only.				
X2	Operation requires either an operable landing light or searchlight.				
X3	Dependent upon mission requirements.				
X4	If item is installed/required for SAR.				
X5	Aircraft must have one operational system, either UHF or VHF.				
X6	Required for all Primary Crew Members.				
X7	Systems only required if IFR flight is expected.				
X8	Two operational radar altimeters are required for all low-level flight.				
X9	Required on at least one of two or more aircraft.				
X10	Only Required when carrying a passenger(s). (Not Flight Crew)				

Table 2.2. PACAF UH-1N MISSION TABLE 2.

Table 2.2. PACAF UH-1N MISSION TABLE 2.								
WUC	SYSTEM/SUBSYSTEM	FSL	BSL					
			DAY VFR	NIGHT	IFR	CROSS COUNTRY	PAX MSN	MED EVAC
11000	Airframe	X	X	X	X	X	X	X
12000	Fuselage Compartments	X	X	X	X	X	X	X
12AA0	Pilot Seat	X	X	X	X	X	X	X
12AB0	Copilot Seat	X	X	X	X	X	X	X
12BA0	Troop Seats	X					X	X
12BE0	Litter Kits	X						X
13000	Landing Gear	X	X	X	X	X	X	X
13B00	Ground Handling Wheels	X				X		
14000	Flight Controls	X	X	X	X	X	X	X
15000	Rotor System	X	X	X	X	X	X	X
22000	Turbo Shaft Power Plant	X	X	X	X	X	X	X
22B00	Engine Instruments	X	X	X	X	X	X	X
22BAB	Pilot Dual Torque Ind	X	X	X	X	X	X	X
22BAB	Copilot Dual Torque Ind	X		X	X	X		
26000	Rotary Drive System	X	X	X	X	X	X	X
26AC0	Transmission Instruments	X	X	X	X	X	X	X
26ACF	Pilot Triple Tachometer	X	X	X	X	X	X	X

26ACF	Copilot Triple Tachometer	X		X	X	X		
41000	A/C, Pressurization and Surface Ice Control	X	X1	X1	X1	X1	X1	X1
42E00	DC Power Supply	X	X2	X	X	X	X2	X2
42F00	AC Power Supply	X	X2	X	X	X	X2	X2
42H00	Power Indicators	X	X	X	X	X	X	X
44A00	Interior Lighting	X		X	X	X		
44AAA	Pilot Utility Lights	X		X		X		
44AAB	Copilot Utility Light	X		X		X		
			BSL					
WUC	SYSTEM/SUBSYSTEM	FSL	DAY VFR	NIGHT	IFR	CROSS COUNTRY	PAX MSN	MED EVAC
44AB0	Dome Lights	X		X		X		X
44AC0	Instrument Panel Lights	X		X		X		
44AD0	Engine Instrument Lights	X		X		X		
44AE0	Overhead Console Lights	X		X		X		
44AF0	Pedestal Lights	X		X		X		
44AG0	Instrument Secondary Lights	X		X		X		
44BA0	Navigation Lights	X	X	X	X	X	X	X
44BB0	Fuselage Lights	X		X		X		
44BC0	Anti-Collision Lights	X	X4	X	X4	X4	X4	X4
44BD0	Landing Light	X	X3	X3	X3	X3	X3	X3
44BE0	Search Light	X	X3	X	X3	X3	X3	X3
44C00	Caution Lights	X	X	X	X	X	X	X
45000	Hydraulic System	X	X	X	X	X	X	X
46A00	Crashworthy Fuel System	X	X	X	X	X	X	X
46AJB	Fuel Quantity Indicator Sys	X	X	X	X	X	X	X
46B00	Auxiliary Fuel System	X				X		
49A00	Engine Fire Detection	X	X	X	X	X	X	X
49F00	Windshield Wiper System	X			X	X		
51A00	Flight Instruments (Pilot)	X	X	X	X	X	X	X
51A00	Flight Instruments (Copilot)	X		X	X	X		
51C00	Pitot Static System	X	X	X	X	X	X	X
51E00	Gyro magnetic Compass	X	X	X	X	X	X	X
51F00	Standby Compass	X			X	X		
51G00	Miscellaneous Instruments	X			X	X		
62D00	VHF-AM ARC-186 Radio	X	X5	X5	X5	X	X5	X5
63B00	UHF Communication	X	X5	X5	X5	X	X5	X5

64000	Interphone System	X	X6	X6	X6	X6	X6	X6
65000	IFF Transponder	X			X	X		
71A00	Radio NAV TACAN	X			X	X		
71AF0	Course Indicator	X			X	X		
71C00	UHF Direction Finder	X				X		
71H00	VOR Navigation Receiver	X			X	X		
71K00	VOR/ILS/MB System	X			X	X		
71Q00	GPS	X		X	X	X		
72C00	Radar Altimeter	X	X8	X8	X8	X8	X8	X8
91A00	First Aid Kits	X	X	X	X	X	X	X
91B00	Hand Held Fire Extinguishers	X	X	X	X	X	X	X
91C00	Emergency Locator Transmitter	X	X	X	X	X	X	X
91D00	Engine Fire Extinguisher	X	X	X	X	X	X	X
91E00	Passenger Alarm Horn	X	X7	X7	X7	X7	X7	X7

Table 2.2. PACAF UH-1N MISSION TABLE 2 NOTES:

1. As required for weather conditions.
2. Flight may be flown if one generator or inverter is not operational.
3. The search light must be operational for night flights. For other flights, search light or landing light must be operational.
4. One red and one white light must be operational. For night flights, top and bottom red strobes must be operational.
5. One radio must be operational. Mission capability depends on destination and en route equipment compatibility.
6. Crew's ICS must be operational. Passenger, ACM, and MEGP ICS must be operational as required by the mission.
7. Only required when carrying a passenger (Not Flight Crew).
8. Two operational radar altimeters required for all low level flight. At least one radar altimeter must be operational for night operations.

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Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 21-103, *Equipment Inventory, Status, and utilization Reporting*, 26 January 2012

Prescribed Forms

No forms are prescribed by this addendum

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFGSC—Air Force Global Strike Command

AFRC—Air Force Reserve Command

FSL—Full System List

FMC—Full Mission Capable

MAJCOM—Major Command

MC—Mission Capable

NMC—Not Mission Capable

PACAF—Pacific Air Forces

PMC—Partial Mission Capable

WUC—Work Unit Code